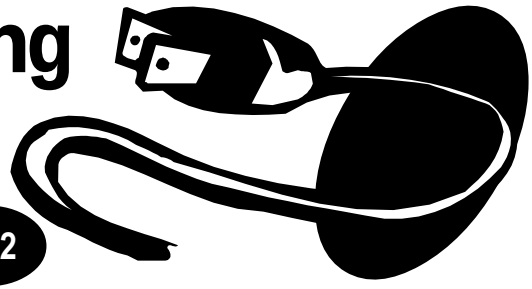
Surviving and Recovering from a Power Outage



Natural Hazards Series: Recovery **Part 2**

One of the first things to go in a natural disaster is electrical service. You may suffer an outage even if you escape all other aspects of a storm, but it doesn't take a disaster to disrupt your service. An automobile accident or fallen tree may take out your power. The power company itself may suffer an equipment failure. Generally, these localized problems can be corrected before you need to take any action.

It is generally a good idea to turn off air conditioners, heaters and other appliances while the power is off. Otherwise, they will try to come on together when power is restored, and your circuits breakers or fuses may blow. Unplugging appliances will also protect them from power cycles and surges which may accompany restoration of electrical service.

Your primary concern with a prolonged power outage during the summer is usually knowing whether the food stored in refrigerators and freezers is safe. In severely hot weather, the loss of electric fans may also be life threatening. In severely cold weather, trying to stay warm and prevent freeze damage will be of concern.

If the power is off or will be off for an extended period, the information on these pages may help.

Using Generators for Electrical Power

Emergency generators become popular after disasters. They can help save food in freezers and refrigerators, but they also may be dangerous if not used properly.

The capacity of a generator is usually stated in watts. For example, you may have a 2,000-watt generator. This is the same as a 2-kilowatt (K.W.) generator, because 1,000 watts is equal to 1 K.W.

Watts is an electrical term determined by multiplying volts times amps. For example, if an appliance requires 120 volts and uses 10 amps, this appliance requires 1,200 watts. This information is on the nameplate of the appliance. By this formula, you can determine what you can run on your generator. For example, an appliance that requires 1,200 watts and one requiring 600 watts could be run on a 2,000-watt generator. However, appliances with motors require more current to start than they do after they are running. A suggestion is to start a refrigerator, allow it to begin running and then plug in another appliance.

(See Generator tips, page 2)

Play it Safe With Food

Preparing for Power Outage

After a disaster, electrical power may be disrupted for hours, sometimes days. There are things you can do to prepare for an outage which may extend the life of foods in your refrigerator and freezer.

- Keep several blue-ice freezable packages in your freezer.
- If your freezer is not full, fill containers (such as milk cartons) with water and freeze. If the electricity goes out, you'll have blocks of ice in the freezer to help maintain temperature.

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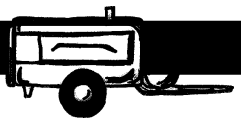
Generator Tips



- Gasoline engines produce carbon monoxide. Don't run them in an enclosed area.
- Check the oil level in the engine before using and on a regular basis (for example when refueling).
- Let the engine cool off before refueling.
- The generator should be kept a safe distance from structures because of engine heat.
- Place the generator on a level surface to keep oil at proper level in engine.
- Water will damage generators as well as produce an electrical hazard, so keep the generator dry.
- A voltage drop may occur if too long an extension cord is connected to the appliance or if one with too small a wire size is used. If the extension cord becomes very warm, it is inadequate.
- Connect the generator directly to the appliance. You should not try to hook generators to your electrical supply box.
- Ground the generator as stated in the instructions. If you use an extension cord, use one with a ground plug.
- Have the generator running before the A.C. circuit on the generator is turned on or before you plug in the appliance.
- An appliance that has a heating element, such as a toaster or hair dryer, consumes a large amount of current. It's best to avoid using these types of items.
- If an appliance has gotten wet or damaged, it may not be in good working order. Using the appliance may damage the generator.
- Some generators have the ability to produce 115/120 volts or 220 volts. Select the outlet that corresponds to the voltage requirement of the appliance.

During Power Outage

Following these steps will help keep food safe during power outages or when the freezer or refrigerator is not working:

- While the electricity is off, avoid opening the refrigerator and freezer doors unless absolutely necessary.
- A fully stocked freezer will usually keep food frozen for two days after losing power. A half-full freezer will usually keep food frozen for about one day. If the freezer isn't full, quickly group packages together so they'll retain the cold more effectively.
- Separate raw meat and poultry items from other foods. Place them on the bottom shelf. If raw meat and poultry begin to thaw, this will prevent their juices from getting onto other foods.
- If the power will be out for a longer period than the freezer will maintain the cold, dry ice may be placed in the freezer. CAUTION: Never touch dry ice with your bare hands or breathe the fumes. Place the dry ice on cardboard or on empty shelves in the freezer around the items to be kept frozen. Thirty pounds of dry ice should hold a full, normal-size freezer below freezing for at least a couple of days.
- In the refrigerator, highly perishable food will usually keep 4 to 6 hours, depending on the kitchen temperature. If the power will be out for longer, block ice or dry ice may be placed in containers in the refrigerator.
- Place blankets or quilts over these appliances to act as additional insulation.

After a Power Outage

There are certain precautions you should take before you begin using food from refrigerators and freezers that have been off for more than a few hours.

- If ice crystals are still visible and/or the food feels as cold as if refrigerated, it is safe to refreeze. Raw meats and poultry, cheese, juices, breads and

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- pastries can be refrozen without losing a lot of quality. Prepared foods, fish, vegetables and fruits can be refrozen safely, but quality may suffer. Mark these to be used as soon as possible.

- Remember that seafood will be among the first to thaw and will need attention first. Also, ground meat is likely to spoil before other meats.

- If the food thawed and is still cool or has not been at room temperature for more than several hours, cook as soon as possible. Serve or refreeze.

- If the food thawed or was held above 40 degrees F for more than 2 hours, generally it should be discarded because bacteria may multiply to unsafe levels under these conditions. The only foods that can be refrozen under these conditions are well-wrapped hard cheeses, butter and margarine, breads and pastries without custard fillings, fruits and fruit juices that look and smell acceptable.

- Vegetables held above 40 degrees F for less than 6 hours may be refrozen, but with quality loss. Pecans and other nuts may be refrozen safely but may suffer quality loss.

When the REFRIGERATOR is operating again, use these guidelines to decide what to do with foods that were stored in the refrigerator:

- Condiments such as ketchup, mustard, mayonnaise, pickles, relishes, piquante sauce, oil and vinegar salad dressings, Worcestershire sauce and steak sauces should be fine. The acid in them is a natural preservative. Jams, jellies, preserves and syrups are all right, too, because sugar serves as a preservative. Check for mold growth.

- Hard cheese will be OK, and if the temperature hasn't gotten too warm inside the refrigerator, blocks or slices of processed cheese can also be used. Well-wrapped butter and margarine can usually be kept as long as they do not melt, but should be discarded if rancid odors develop. Keep unopened packages of cream cheese, but discard if they are moldy when opened. Sour cream,
- yogurt and milk should be OK if cool, although quality may be poor and shelf life shortened.

- Fresh fruits and vegetables are safe as long as they're still firm and there's no evidence of mold, a yeasty smell or sliminess. Juices are safe as long as there's no evidence of mold growth and they look and smell acceptable.

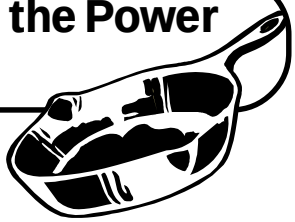
- Pecans, peanuts and peanut butter also are safe. Cured meats and lunch meats if still cold and not slimy are OK.

- Eggs are OK if still cool. Eggs should never be eaten raw.

- Throw away leftovers and other highly perishable foods that have been held at temperatures around room temperature for more than several hours.

- You should have cooked any raw meat, fish or poultry products stored in the refrigerator by the second day of the power failure unless you kept ice or dry ice in the refrigerator. If not, discard.

How to Cook when the Power Goes Off



After a disaster has knocked out electricity or gas lines, cooking meals can be a problem and can be hazardous if a few basic rules are not followed.

Tips

- Charcoal or gas grills are the most obvious alternative sources of heat for cooking. Never use them indoors. In doing so, you risk both asphyxiation from carbon monoxide and the chance of starting a fire that could destroy your home.

- Camp stoves that use liquid or solid fuel should always be used outdoors.

- Use small electrical appliances to prepare meals if you have access to an electrical generator and the generator has sufficient capacity. Do not use an appliance that has been flooded until it has been checked for shorted circuitry.

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- You can use wood for cooking in many situations. You can cook in a fireplace if the chimney is sound. Don't start a fire in a fireplace that has a broken chimney. Be sure the damper is open.
- If you're cooking on a wood stove, make sure the stove pipe has not been damaged.
- If you have to build a fire outside, build it away from buildings, never in a carport. Sparks can easily get into the ceiling and start a house fire.
- Never use gasoline to get a wood or charcoal fire started.
- Do not use "treated" wood as fuel for a cooking fire.
- Make sure any fire is well-contained. A metal drum or stones around the fire bed are good precautions. A charcoal grill is a good place in which to build a wood fire. Be sure to put out any fire when you are through with it.
- When cooking is not possible, some canned food can be eaten cold. Or it can be warmed over canned heat or candles.
- Never leave any open fire, canned heat or candle unattended. Keep children away at all times.

Removing Odors from Refrigerator and Freezer

If food has thawed in your refrigerator or freezer, you are probably facing an odor problem that hangs on even after the spoiled food is gone. Getting rid of this odor is likely to take time, patience and a combination of techniques.

Empty, clean and disinfect

Remove all food, unplug appliance and take out all removable parts. Empty the defrost water disposal pan (if it has one).

Wash each part thoroughly with hot water and detergent. Rinse with a disinfectant solution (1 teaspoon chlorine bleach for each gallon of water).

Wash the inside, including doors and gaskets, with a solution of hot water and baking soda.Rinse with disinfectant solution.

Do not mix ammonia and chlorine solutions! This combination gives off deadly fumes.

Air it out

Leave the door open for at least 15 minutes to air out. If you had a long power outage, this probably won't be enough.

If odor remains, repeatedly heat and ventilate the inside walls. Warm the inside walls with a portable convection heater (one that blows warm air), hair dryer or hot air popcorn popper. Do not use a heat source that can damage, and do not leave the heater unattended.

Then turn off the heat and ventilate with a portable fan until the inside walls are cool.

Repeat this process for several hours or until the odor is almost gone.

If some odor remains, activated charcoal filters or a tray of loose activated carbon will absorb persistent odors. Look for it at drugstores, appliance service companies and hardware stores.

If you can't find activated carbon, you can use crushed charcoal (the kind used for barbecue grills), but it will not be as effective. Large servicing companies may recommend chemical deodorizers that are stronger than charcoal and last several months. Foods should be covered if such chemicals are used.

Spread about 3 ounces of the fine powered charcoal on a sheet of aluminum foil or in a shallow pan, and place on the refrigerator or freezer shelf.

If possible, run your freezer with nothing but the carbon in it for a couple of days.

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After 6 or 8 hours, heat the pan of loose charcoal in a moderate (350 degrees F) oven to reactivate the carbon so it can be reused. Put the charcoal back in the refrigerator and freezer. Repeat the process until the odor disappears.

Store food in sealed containers or wrappings

Foods can be kept in the cleaned refrigerator with the charcoal. Even if traces of the odor remain, sealed food will not be affected.

Refrigerate and freeze all food in sealed containers or secured freezer wrappings. When you take out a package, remove wrappings as soon as possible, and dispose of them immediately.

If nothing works

If all these efforts don't seem to help much, there may have been seepage into the walls of the freezer or refrigerator. If the insulation has gotten wet, the appliance may have to be discarded eventually because it may not only have persistent bad odors, but may also run continuously or frost up on the outside because of the ruined insulation. In some cases, it may be feasible to replace the wet insulation, but for most, a new energy-efficient refrigerator or freezer may be more cost-effective.

Power Outage in Winter

With so many people accustomed to heating with electrical energy, the loss of power in winter presents problems of staying warm and keeping the household plumbing from freezing. The principal alternative heat source is fire, which must be used safely and with caution, or it, too, becomes a hazard.

If you have suffered a power outage in severely cold weather, your alternative heat probably will not be adequate to heat the entire dwelling. If the temperature will be very low for an extended period, it may be advisable to drain interior water pipes that would have been kept from freezing by the household heat.

Keeping yourself warm:

Dress in layers of loose, light-weight, warm clothing.

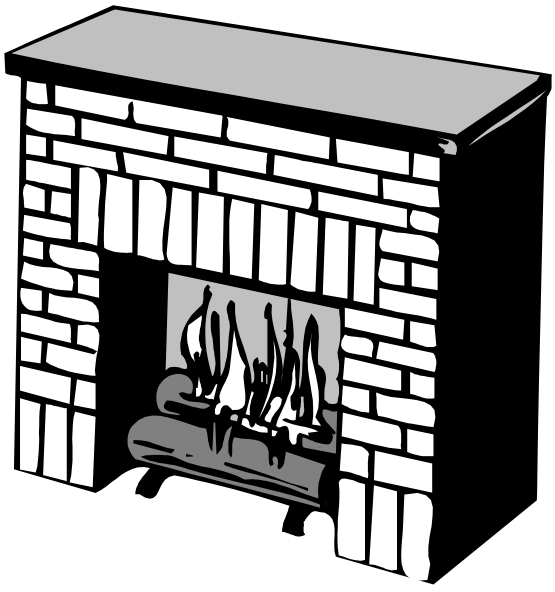
Eat and drink adequately. Food provides the body with energy and heat. Fluids prevent dehydration. Avoid alcoholic drinks. Although they make you feel warmer, they actually make you more succeptible to hypothermia.

Don't ignore the signs of hypothermia. If you're shivering uncontrollably, stumbling around, having trouble talking, and feeling drowsy and exhausted, get help.

Heating the living space:

Heat only the area you are staying in; close off rooms you're not using. If you're using a fuel-burning space heater that isn't vented to the outdoors through a pipe or chimney, provide proper ventilation. Open a window slightly, and leave the door to the room open. Be sure to use the proper fuel for the heater.

Use only seasoned (dry) hardwoods in the fireplace. Make sure the damper is open as long as any embers are smoldering; close it when the fireplace is not in use to keep hot air from escaping up the chimney.



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Never use stoves, crawfish boilers, ovens or other cooking appliances for home heating. These can produce a lot of carbon monoxide. Since they're not designed for continuous operation, using them for heating may also create a fire hazard.

- Use window drapes to insulate windows at night and open to let sunshine in in the daytime.
- Don't let children play around heaters. They may get burned or topple the heater.
- Keep flammable materials at least 3 feet from heaters.
- Keep a fire extinguisher handy.

For more information, contact your local Cooperative Extension Service office listed under local government in the telephone directory.

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